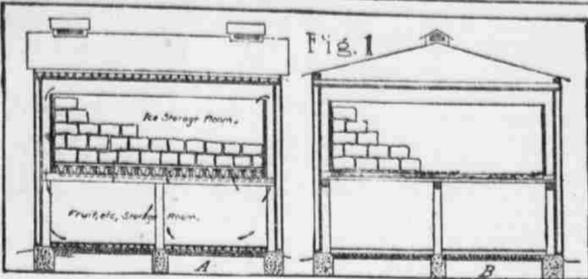
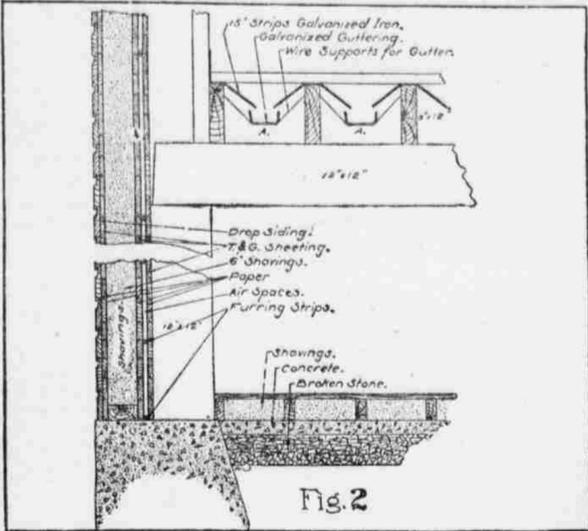


GOOD TEMPERATURE FOR FRUIT STORAGE



Diagrams Showing Cross Sections of a Building Planned for Storing Ice Above and Fruit Below—A, Longitudinal Section—B, Transverse Section.



Diagrams Showing the Wall Construction and Slat Floor Used in the Building Shown in Fig. 1.

(Prepared by the United States Department of Agriculture.)

In order that fruits may be held for long periods in storage it is necessary that a uniform low temperature be maintained in the storeroom. With many products a uniform temperature is of more importance than a low temperature. With apples, which is the crop usually held in storage, it is desirable that the fruit reach an advanced state of maturity upon the tree, but that the ripening process be checked immediately when the fruit is placed in storage. This sudden check cannot be effected in ordinary storage at picking time. It is therefore necessary that the storage house be provided with means for reducing the temperature to the required point and holding it there until natural conditions permit the introduction of cold air from the outside.

Several systems have been used for accomplishing this result. The simplest is to build the ice house as a two-story structure and to store the ice above and the fruit below. The ice may be stored at harvest time in an ice house or in an ice chamber arranged over the room in which the fruit is to be held, or the place may be simply a temporary storeroom, to which the ice is transferred at the time the first fruit is stored. Both these

plans have been followed, but the one to be used in any particular instance will depend upon the cost of handling the ice and the certainty of the fruit harvest.

The general principles involved in the construction of such a house hold for both plans. Where the structure is for combined ice and fruit storage the ice chamber will of necessity be much larger than when ice is used merely to lower the temperature of the house at harvest time. The details of construction shown in Fig. 1 may be so modified as to adapt the building for either use.

If the object is especially that of fruit storage, the ice chamber may be so reduced as to serve merely as a bunker in which to place several tons of ice at a time, to be replaced as needed. The detail of Fig. 2 shows a slat floor built of 2x4 inch Georgia pine supported on 2x12 inch or 3x12 inch joists, as needs may require. The joists are protected by a cap of galvanized metal 15 inches wide tacked to and formed over the top of the joists prior to laying the slat floor, so that the drip from each metal cap may be caught by the line of gutter (Fig. 2, A) which is suspended between the joists. This is one of the simplest types of floor construction possible for this style of structure.

HAVE HOUSES WARM AND COMFORTABLE

Close All Cracks to Prevent Drafts Striking Birds While on Roosts—Cull Drones.

Make your poultry houses warm and comfortable for the winter, overhaul them, see that no cracks are there to allow cold drafts to strike on the birds or the roosts, be sure that your roofs and north, east and west sides are perfectly tight, but allow for plenty of fresh air to come in the south side, which ought to be the farthest away from the roosting section; this will insure a dry house. Houses may be warm and comfortable and yet well ventilated; a stuffy, ill-ventilated house that smells when you open the door in the morning is not a healthy place for your birds; when this is the case give more ventilation without drafts. Use plenty of charcoal. Supply a good dust bath; coal ashes or road dust is suitable for this purpose. Clean out droppings often, every day if possible. Weed out the undesirable, cockerels, pullets and old hens that you do not need to produce the best results. Only keep the useful birds, giving them all the room possible. Winter eggs bring high prices and you only can get best results by keeping the most promising layers. If you want eggs you must feed for them. Supply a good litter and plenty of it.

Pasteurized Milk Safe.

Heating milk or its by-products to 150 degrees and holding it at this temperature for a certain length of time, kills the germs of tuberculosis and other diseases that might be present. This process is called pasteurization. It is the most readily available way of rendering safe milk that is not known to be clean or is perhaps known not to be a high-class product. It makes no pretense of removing filth from milk, but it renders innocuous and harmless the impurities and disease germs contained in it.

CARING FOR CALVES DURING THE WINTER

Modern Plan Which Makes Good Cows Later—Give Youngsters Plenty of Bedding.

When the calf is taken away from the cow, it should be turned into a roomy pen which is light and as sunny as possible, and contains enough in the way of straw or hay to keep the animal busy. By all means must this pen be clean, and kept clean. Whatever the plan of feeding when the calf gets to the grain stage, only what it will eat up clean should be given; never have any grain, and especially wet feed, left in the box, for it is likely to take away the animal's appetite for the next meal.

At night see that the pen is clean and the floor dry, and give the calves plenty of bedding, being liberal with it if the night promises to be cold. During the pleasant days let the calves in to the yard for a run, but do not keep them there until they become chilled. Handle them every day, but do not play with them or tease them, if you expect to raise them as additions to the herd. A pet calf makes an unruly cow, nine times out of ten. Treat them kindly and so they will get used to you, but let your affection stop there.

Wrapping Apples.

If apples are thoroughly cooled before storing they keep better if wrapped with oiled paper and put into tight boxes or barrels.

If put in storage when warm, tight boxes and wrapping make matters worse. Oiled paper is better than newspaper, because if one apple rots it is less apt to injure others if wrapped with such paper.

Profit in Feathers.

So little attention is usually paid to feathers, even on the farms where many fowls are dressed for the market; and yet they can be worked up into a profitable side line.

ORCHARD TOPICS

DAMAGE BY CURRANT MAGGOT

Worst Pest of Small Bush Fruits—Its Attack Causes Berries to Turn Red and Drop to Ground.

(By C. P. GILLETTE, Colorado Experiment Station.)

Perhaps the worst pest to the currant and gooseberry is the maggot that gets into the fruit before the berries are ripe, causing them to turn red and drop. The adult insect is a fly about the size of an ordinary house fly, but a light yellowish brown in color with dusky bands crossing its wings. This fly deposits its eggs one in a place, just beneath the skin of the currant and gooseberries, which upon hatching develop into the maggot. The fruit drops to the ground and the maggot escapes and burrows a little beneath the surface of the soil and remains until the next spring. We do not know any remedy aside from that of allowing chickens to run



Harvesting the Currants.

among the currant and gooseberry bushes after the fruit is off, for the purpose of picking up these maggots in the older stages of their development. Spading the soil around the bushes so that the surface soil will be covered with four or five inches of fresh dirt will also destroy a great many of the insects. Whatever can be done toward gathering the infested fruit and destroying it will also lessen the number of flies to destroy berries the following spring.

PLANTING THE WALNUT TREE

Prepare Soil Carefully and Plant Nuts Three Feet Apart in Furrows—Carefully Conserve Moisture.

Black walnut seeds are to be gathered in the fall, and the nuts carefully stratified. The nuts are not to be hulled even when the seed is planted, as the hull interferes in no way with the germination, and it may prevent the nut from drying out.

Gather the nuts, and alternate a layer of them with a layer of sand and leaves. Moisten the pile, and allow it to freeze. Let it remain moist and frozen all of the winter.

Plant the seed next spring as soon as the ground is in a workable condition. Black walnut trees will not make a good growth unless the ground is rich, and they ought not to be planted on any other kind. Prepare the land carefully and plant the nuts three feet apart in furrows ten feet apart. Plant the nuts four inches deep. As the black walnut is very sensitive to dry, parched conditions, it is necessary to give the trees good cultivation, and carefully conserve the moisture.

SAYINGS OF PROF. HEDRICK

Careful Account Kept of Cost of Growing Apples and of Profits Under Intelligent Management.

Professor Hedrick of the New York state experiment station at Geneva has kept careful account of the cost of growing apples, and of the profits under intelligent management. The net income from the orchard averaged during the ten year test period \$93.74 an acre, equal to 18 1/2 per cent on a \$500 investment. He expects the orchard to do as well or better during the next twenty years.

The question of tillage versus sod mulch in orchards has been often and heatedly discussed. Professor Hedrick states that for every dollar he has taken out of the soil half of the test orchard he has taken \$1.54 out of the tilled half.

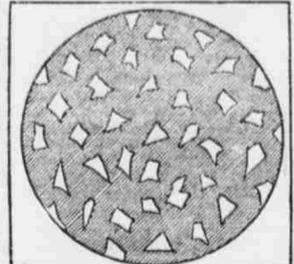
Apples are found more highly colored on sod than on tilled trees. They are also earlier and drier. The tilled fruit is about two weeks later, keeps better and is of higher quality. The old trees now are much better in general appearance.

PUBLIC HIGHWAYS

PROCESS IN ROAD BUILDING

Various Steps in Construction of Highways Described—Concrete, Gravel and Brick Mentioned.

Highway improvement, like the growth of population, should be progressive, argues a student of the subject. Each should be suited to the requirements of its period, says Cleveland Leader. This contemplates, first,



Sand-Clay Mixture With an Insufficient Amount of Sand, the Grains Not Being in Contact.

the proper locating, grading and drainage of the sub-base, which are essential to any good road.

This sub-base can be used as an earth road during the years when traffic is light and can be kept in serviceable condition by dragging after spring and fall rains at a cost of \$30 a year a mile.

The second step is to make a gravel road, when travel increases or funds become available, by applying several inches of sharp, clean gravel after dragging and rolling the earth road. This can be done in most places for a few hundred dollars a mile, and maintenance will cost about one hundred dollars a mile.

When the gravel road is outgrown, it forms an excellent foundation for a concrete surface. It is only necessary to loosen the gravel and roll it to uniform compactness, then lay a course of hydraulic concrete to carry heavy traffic. The surface construction costs approximately \$1.50 a square yard. Maintenance should not average more than \$50 a mile.

The final step in progressive road building, when heavy teaming and trucking predominate, is to lay a course of vitrified brick or granite sets grouted with cement on a sand cushion on top of the concrete. Or, if part of the road should become a residence street or be set apart as



Clay Mixed With Sand to the Point of Saturation, With the Angular Sand Grains in Contact.

a boulevard, a quiet pavement of wood blocks, sheet asphalt or asphalt blocks can be laid on the concrete.

This is the most practical and economical plan, providing for varying volumes and kinds of traffic over a century or more of use and involving less of investment in pavements that are excessively costly to maintain and which are not essential as a foundation in the final type of highway.

Gravel Improves Roads.

Where gravel is abundant roads may be greatly improved by spreading a layer of the same on a central space in the road. This space should be not less than say twelve feet wide. If the gravel is suitable, two to three inches of it will tend to firm the roadbed. Of course the ideal way where the materials are suitable and the expense can be borne is to remove the earth from this central portion and nearly fill the depression with small stones. Then cover with two or three inches of earth and over this spread the gravel. A good road is thus made and one that lasts, but this can only be done where such material is plentiful.

Keep Water From Road.

Where a road runs along a hill, the water must be kept from running upon the road. The side ditch must be ample and, if necessary, a string of tile put three feet or more below the bottom of the ditch on the up-hill side, which will prevent seepage from below.

Instruction for Road Boss.

Every road boss should attend road-making school and read all he can about highway construction and maintenance.

His Only Possession.

Al Rogers was traveling through a lonely section in the suburbs of Boston one night, a short while ago, when he was startled by hearing this piteous appeal: "Will the kind gentleman please help a poor unfortunate man? I—" At this point Al felt to locate his watch. The other continued: "I have nothin' in the world but this loaded revolver."

Seeking Worthy Objects.

"Dodsworth tells me that he is a practical philanthropist." "That's just what he is. Before offering a dime to a beggar Dodsworth asks him so many disagreeable questions that the poor devil is glad to escape without the dime."

The more a man knows the less he thinks he knows.

160 ACRE FARMS IN WESTERN CANADA FREE

WAITING FOR YOU

Yes, waiting for every farmer or farmer's son—any industrious American who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is higher but her farm land just as cheap and in the provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads are Actually Free to Settlers and Other Land at From \$15 to \$20 per Acre

The people of European countries as well as the American continent must be fed—thus an even greater demand for Canadian Wheat will keep up the price. Any farmer who can buy land at \$15.00 to \$30.00 per acre—get a dollar for wheat and raise 20 to 45 bushels to the acre is bound to make money—that's what you can expect in Western Canada. Wonderful yields also of Oats, Barley and Flax. Mixed Farming is fully as profitable an industry as grain raising. The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools, markets convenient, climate excellent.

Military service is not compulsory in Canada but there is an unusual demand for farm labor to replace the many young men who have volunteered for service in the war. Write for literature and particulars as to reduced railway rates to Superintendent Immigration, Ottawa, Canada; or to

W. V. Bennett, 220 17th St., Room 4, Bee Building, Omaha, Nebr.

Canadian Government Agent.

MODERN LIVING COMES HIGH

Observer Thinks There Are Too Many "Necessities" in Demand at the Present Time.

"One of the reasons for the cost of living," observes a wise clubman, "lies in the fact that people buy wholly unnecessary things. I had a conversation with the proprietor of a novelty shop in Fifth avenue a few days ago. A shiny object had attracted my attention, and I required about its use.

"Those," said the proprietor, "are gilded pincers to pick up letters one has placed on the letter-scales."

"And that ivory stick, carved and forked at the end?"

"People use that to fish out things they have dropped into carafes."

"That square of morocco, about the size of a nut—what is that for?"

"That's a tampon—used to press down stamps after sticking them on envelopes."

"That ornamental box with a whole battery of little brushes?"

"Those are to clean other brushes; brushes to clean hair-brushes, brushes to clean tooth-brushes."—New York Evening Post.

Why Thomas Concluded. Whack, whack, whack! Tommy was undergoing a painful punishment at the hands of his loving mother for eating the jam.

"Tommy," she said seriously, when she was forced to pause, "this hurts me far more than it does you."

And when Tommy was alone with his brother he produced a square board he had concealed, and thoughtfully murmured:

"I thought all along that bit of wood wouldn't do her any good!"

Important to Mothers. Examine carefully every bottle of CASTORIA, a safe and sure remedy for infants and children, and see that it bears the Signature of *Chas. H. Fletcher* in Use For Over 30 Years. Children Cry for Fletcher's Castoria

Inconsistent. "The English are queer people." "You think so?" "Yes. In time of peace they treated Tommy Atkins with contempt and made him sore, and now in time of war they treat him with so much good liquor that they make him drunk."

Cause Removed. "Did you notice how few Sunday school picnics there were this season?" "I did in a way." "How in a way?" "I did remark how little rain we had."

The View. "There is a story in that face!" "You must be seeing it out of the tale of your eye."

Beautiful, clear white clothes delights the laundress who uses Red Cross Ball Blue. All grocers. Adv.

Many a man who boasts of his blue blood has a streak of yellow.

Sometimes it is also a good rule that won't work both ways.

Good devils'

food is made of Van Houten's Rona Cocoa instead of grated or melted chocolate. Use less cocoa. Half-pound—red—can 25c

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Traveaty on Real Falstaff.

Yarmouth has a claim upon all Englishmen quite independently of its associations with the breakfast bloater, remarks a writer in St. Nicholas. For it was the home of Shakespeare's Falstaff, who appears to have been a man of exemplary piety. The Falstaffs were an old Yarmouth family.

"A Falstaffe or Falstaff," writes John Richard Green, "was bailiff of Yarmouth in 1281. Another is among the first of its representatives in parliament, and from that the members of that family filled the highest municipal offices. John Falstaffe, a man of considerable account in the town, purchased lands at the close of the fourteenth century in Calstow, and became the father of Sir John Falstaffe, who, after a distinguished military career, was luckless enough to give his name to Shakespeare's famous character. In Yarmouth, however, he was better known as a benefactor to the great church of St. Nicholas.

At the First Signs. Of falling hair get Cuticura. It works wonders. Touch spots of dandruff and itching with Cuticura Ointment, and follow next morning with a hot shampoo of Cuticura Soap. This at once arrests falling hair and promotes hair growth. For free sample each with 32-p. Skin Book, address post card: Cuticura, Dept. X, Boston. Sold everywhere.—Adv.

A Woman's Way. "Your loom is sealed," cried the villain. "Ha!" laughed the heroine defiantly. "I guess I can steam it open."

The Test. "Is he a good lawyer?" "I should say he is. He's acquitted some of our most notorious criminals."

YOUR OWN DRUGGIST WILL TELL YOU. Try Murine Eye Remedy for Red, Weak, Watery Eyes and Granulated Eyelids. No Stinging, just Eye comfort. Write for Book of the Eye by mail from Murine Eye Remedy Co., Chicago.

You never believe a man when he flatters you, but you like to hear it just the same.

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Cut out cathartics and purgatives. They are brutal, harsh, unnecessary. Try **CARTER'S LITTLE LIVER PILLS**

Purely vegetable. Act gently on the liver, eliminate bile, and soothe the delicate membrane of the bowels. Care Constipation, Bilemness, Sick Head, ache and indigestion, as millions know. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature

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Gives Prompt and Positive Relief in Every Case. Sold by Druggists. Price \$1.00. Trial Package by Mail 50c.

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Can be handled very easily. The sick are cured, and all others to some extent, no matter how long they have had the disease, by using **COLT'S DISTEMPER**. Give on the tongue, or in food. Acts on the blood and expels germs of all forms of distemper. Best remedy ever known for horses in fact. One bottle guaranteed to cure one case. See ad in a bottle. Send 10c dozen of druggists and horse dealers, or send express paid to manufacturer. Cut down here to positive list. Get from booklet given every thing. Local agents wanted. Largest selling house ready to sell twelve year.

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